

REMARKS

This paper is submitted in reply to the Office Action dated July 8, 2004, within the three-month period for response. Reconsideration and allowance of all pending claims are respectfully requested.

In the subject Office Action, claims 1-2, 4, 7, 9, 18, 20-22, 24-25, 27, 33-38, 41 and 74-80 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of U.S. Patent No. 6,745,003 to Maca et al.; claims 5-6, 10-11, 19, 23, 29-30, 42-43, 47, 56, 60, and 81-86 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of Maca et al.; claims 3 and 28 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of Maca et al. in view of U.S. Patent No. 6,133,868 to Butler et al.; and claims 16-39 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-31 of Maca et al. in view of U.S. Patent No. 4,301,533 to Acampora et al. Moreover, claims 63-70 and 73 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. No. 5,835,848 to Bi et al. in view of U.S. Patent No. 5,600,333 to Justice et al.; and claim 71 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Bi et al. in view of Justice et al. and further in view of Acampora et al. The Examiner did indicate, however, that claims 8, 12-15, 17, 26, 31-32, 40, 44-46, 48-54, 57-59, and 72 were directed to allowable subject matter.

Applicants respectfully traverse the Examiner's rejections to the extent that they are maintained. Applicants have canceled claims 55, 60-62, 72 and 87, amended claim 63, and added new claims 88-90. Applicants respectfully submit that no new matter is being added by the above amendments, as the amendments are fully supported in the specification, drawings and claims as originally filed.

As an initial matter, Applicants note that initialed copies of the 1449 forms for the Information Disclosure Statements filed on January 26, 2001 and July 26, 2001 (Paper

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Nos. 2 and 4, respectively as indicated on Form PTOL-326) were not received with the Office Action. Applicants respectfully request that the Examiner return initialed copies of these 1449 forms in the Examiner's next communication, or via facsimile transmission to Applicants' representatives at (513) 241-6234 at the Examiner's earliest convenience.

Now turning to the subject Office Action, and more specifically to the rejections of claims 1-7, 9-11, 16, 18-25, 27-30, 33-39, 41-43, 47, 56 and 74-86 based upon obviousness-type double patenting, the Examiner will note that Applicants have submitted herewith a Terminal Disclaimer to obviate the double patent rejections based upon Maca et al. Applicants note that the filing of a Terminal Disclaimer does not act as an admission as to the validity of the double patenting rejections, and indeed, Applicants continue to traverse the Examiner's reasoning for the double patenting rejections. Nonetheless, Applicants submit that the submission of the Terminal Disclaimer overcomes the double patenting rejections, and as a result, reconsideration and allowance of claims 1-7, 9-11, 16, 18-25, 27-30, 33-39, 41-43, 47, 56 and 74-86 are respectfully requested.

Next, with respect to independent claim 63 (the only independent claim rejected on art other than Maca et al.), this claim has been amended to incorporate the subject matter of claim 72, which was found to be directed to allowable subject matter by the Examiner. Claim 72 has also been canceled without prejudice. Given the prior finding of allowable subject matter, Applicants respectfully submit that claim 63 is now in proper condition for allowance. Reconsideration and allowance of claim 63, and of claims 64-71 and 73 which depend therefrom, are therefore respectfully requested.

Next, the Examiner will note that Applicants have added new independent claims 88-90, each of which is based upon claim 63, but includes additional subject matter already found to be allowable by the Examiner. In particular, claim 88 adds to claim 63 the concept of performing beamforming by operating a Butler matrix based upon angle and elevation information stored in a memory, similar to objected-to claims 12, 14 and

31. Claim 89 adds to claim 63 the concept of reducing coupling between a donor antenna and a null antenna using a plurality of radio frequency chokes surrounding the antenna face of each of the donor and null antennas, similar to objected-to claims 44, 48, 52 and 57. Claim 90 adds to claim 63 the concept of reducing coupling between a donor antenna and a null antenna using a plurality of radio frequency chokes surrounding a peripheral edge surface defined by each of the donor and null antennas, similar to objected-to claims 45, 49, 53 and 58. As each of these concepts has been acknowledged to define over the prior art of record by the Examiner, consideration and allowance of each of claims 88-90 are therefore respectfully requested.

As a final matter, the Examiner will note that the non-elected claims 55, 60-62 and 87, which have been withdrawn from consideration by the Examiner, have now been canceled without prejudice.

In summary, Applicants respectfully submit that all pending claims are novel and non-obvious over the prior art of record. Reconsideration and allowance of all pending claims are therefore respectfully requested. If the Examiner has any questions regarding the foregoing, or which might otherwise further this case onto allowance, the Examiner may contact the undersigned at (513) 241-2324. Moreover, if any other charges or credits are necessary to complete this communication, please apply them to Deposit Account 23-3000.

Respectfully submitted,

Date

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